

## **Proposal for establishing a new Technical Committee**

### **Title: Methods for characterising and calibrating detectors in photon counting regime**

**Terms of Reference:** Photon counters are becoming more and more widely used in a wide range of industrial, environmental, health and communication applications. The measurement uncertainty achievable for this type of detector depends on the measurement technique employed, as well as characteristics of the sensor being tested

The scope of this TC will be to prepare a technical report to

- Give clear definitions for the individual characteristics that can be used for evaluating the performances of photon counters.
- Recommend methods for the characterisation of these counters
- Recommend methods for the calibration of these counters
- Provide a guideline for the selection and correct usage of these counters

This report may be used as a guide

- For the manufacturers in developing good quality photon counters
- For the calibration labs (and for endusers where primary standard techniques are possible and practical) in performing calibration of these photon counters in a standardised and comparable way
- For the users in the appropriate usage of these counters to get correct and consistent measurement results for their application